Hanford Overview

Richland Operations Office

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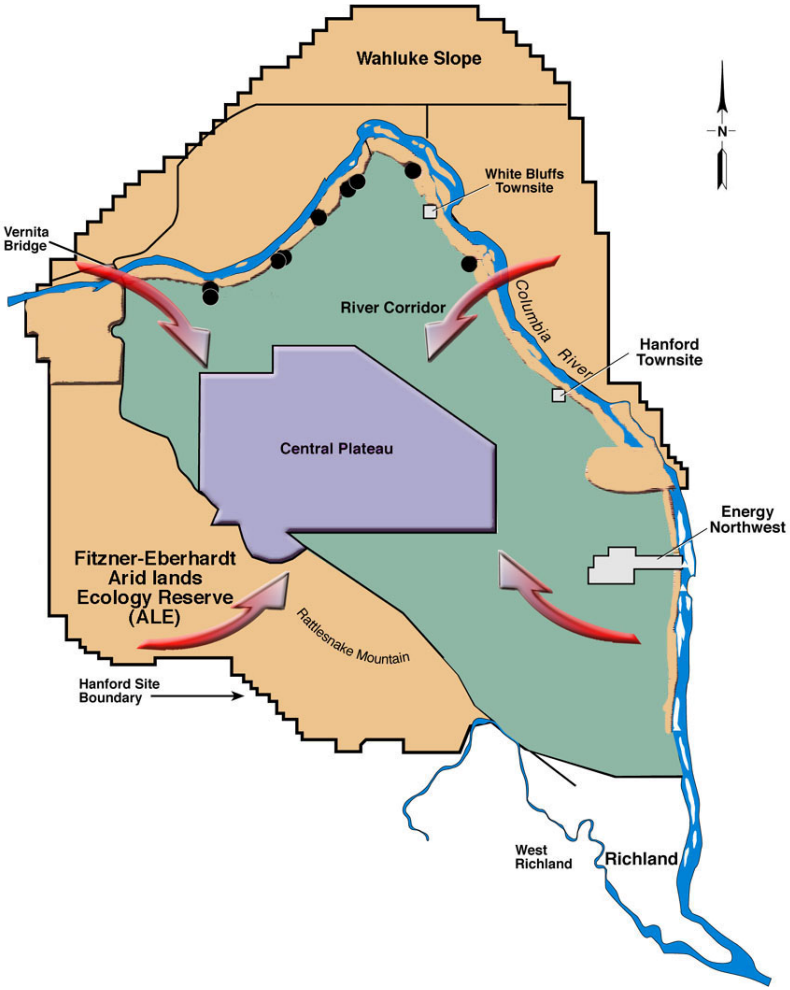
E M Environmental Management

safety ❖ performance ❖ cleanup ❖ closure www.em.doe.gov

Hanford Cleanup Strategy

- **Focus on activities that reduce risk**
  - **Remove/stabilize high-risk materials**
  - **Deactivate and decommission excess facilities**
  - **Minimize long-term risks related to materials that will remain on-site**
  - **Work closely with regulators and the community to make decisions to guide and enable physical progress**



What we started with…

- 2,300 tons of deteriorating spent nuclear fuel
- 18 tons of plutonium material
- 1,936 capsules of cesium and strontium
- 80 square miles of contaminated groundwater
- 25 million cubic feet of waste
- 1,700 waste sites
- 500 contaminated and 950 non-contaminated facilities/structures, including five processing canyons and nine reactor complexes

Where we are Today...

Spent Nuclear Fuel

- All spent nuclear fuel packaged and moved to dry, safe, underground storage in the center of the Hanford Site away from the Columbia River
- Cement-like “grout” placed over the floor of the K East basin to allow for draining of remaining contaminated water and ultimate removal of the basin in 2009

Where we are Today...

Plutonium

- Entire inventory of plutonium-bearing materials in safe, stable forms and packaged in specialized containers
- Shipment of plutonium to Savannah River, SC, underway
- The highly contaminated 232-Z Incinerator Facility at PFP decontaminated, deactivated, and demolished in June 2006
- The 241-Z Liquid Waste Tank Facility decontaminated, deactivated, and demolished in June 2007
- Approximately one-third of the PFP "glove boxes" cleaned out

Where we are Today...

Production Reactors

- Five of nine reactors in Interim Safe Storage
- Ancillary buildings torn down around B, C, D, DR, F, and H reactors
- Surrounding waste sites cleaned up
- Five year inspection of DR Reactor shows no degradation

Where we are Today...

Waste Sites

- Over 400 of the 761 waste site and all 65 high priority liquid waste discharge sites along the Columbia River corridor cleaned up
- Over 7 million tons of contaminated soil removed and disposed of in the Environmental Restoration Disposal Facility

Where we are Today...

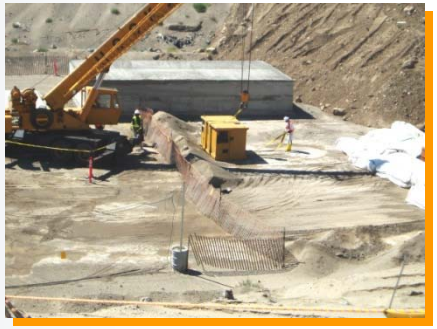
Facilities

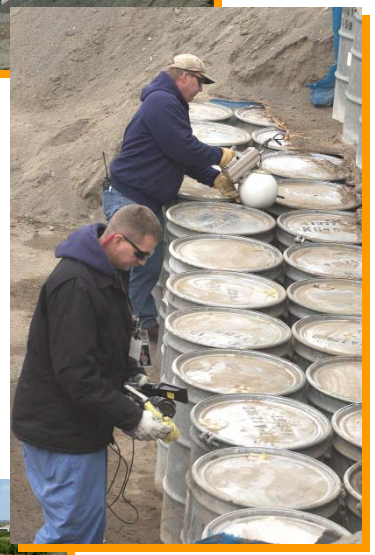
- More than 140 facilities decontaminated and demolished
- Four major facilities being transitioned to PNNL for use

Where we are Today...

TRU Waste

- 389 shipments of transuranic waste moved off the Hanford Site to the Waste Isolation Pilot Plant in New Mexico, representing over 13,000 drum equivalents and 2,730 cubic meters of waste
- All low-level waste disposed of in lined disposal facilities starting in 2004
- More than 34,500 drum equivalents of suspect transuranic waste retrieved from trenches in the middle of the Hanford Site, reducing risk and providing feed to fill the "pipeline" of shipments leaving Hanford for disposal in New Mexico





Where we are Today...

Plutonium Facilities

- **233-S Plutonium Concentration Facility gone after first "open air" demolition**

Where we are Today...
Groundwater Remediation

- 136 billion liters of groundwater treated
- New and innovative technologies being implemented to reduce groundwater contamination including chemical barriers, ecological systems, and new pump and treat systems

Worker Safety is Our Priority

Safety is the single most important element of our project success

Protection of workers, the public and the environment